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Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment onto an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

Declaration of Conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This device is in conformity with the following EC/EMC directives:

- ❑ **EN 55022** Limits and methods of measurement of radio disturbance characteristics of information technology equipment
- ❑ **EN 61000-3-2** Disturbances in supply systems caused
- ❑ **EN 61000-3-3** Disturbances in supply systems caused by household appliances and similar electrical equipment " Voltage fluctuations"
- ❑ **EN 55024** Information technology equipment-Immunity characteristics-Limits and methods of measurement
- ❑ **EN 60950** Safety for information technology equipment including electrical business equipment
- ❑ **CE marking** CE

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Brief Introduction

Specifications

CPU	• Socket FM2+ for AMD A series processors • Supports CPU up to 100W TDP *Note: Please go to ECS website for the latest CPU support list.*
Chipset	• AMD A58 (Bolton) Chipset
Memory	• Dual-channel DDR3 memory architecture • 2 x 240-pin DDR3 DIMM sockets support up to 32 GB • Supports DDR3 2133(FM2+)*/1866(FM2)* MHz DDR3 SDRAM *Note: *Due to the limitation of chipset spec, it supports up to 2133/1866 MHz, 1.5V memory with a single DIMM per channel. Please go to ECS website for the latest Memory support list.*
Expansion Slots	• 1 x PCI Express x16 Gen3* slot • 1 x PCI Express x1 slot *Note: *FM2+ supports PCI Express Gen3, FM2 supports PCI Express Gen2.*
Storage	• Supported by AMD A58 (Bolton) Chipset - 4 x Serial ATA 3Gb/s connectors
Audio	• Realtek ALC662 6-Ch High Definition audio CODEC - Compliant with HD audio specification
LAN	• Realtek RTL8111G Gigabit LAN
Rear Panel I/O	• 1 x PS/2 keyboard and PS/2 mouse connectors • 1 x D-sub (VGA) port • 1 x HDMI port (optional) • 4 x USB 2.0 ports • 1 x RJ45 LAN connector • 1 x Audio port (Line in, microphone and Line out)
Internal I/O Connectors & Headers	• 1 x 24-pin ATX Power Supply connector • 1 x 4-pin 12V Power connector • 1 x 4-pin CPU_FAN connector • 1 x 3-pin SYS_FAN connector • 2 x USB 2.0 headers support additional four USB 2.0 ports • 4 x Serial SATA 3Gb/s connectors • 1 x COM header • 1 x Case open header • 1 x Front Panel audio header • 1 x Front Panel switch/LED header • 1 x Speaker header • 1 x Clear CMOS jumper • 1 x Front panel USB power select jumper • 1 x Rear USB/PS2 power select jumper • 1 x Debug Card header (LDC) • 1 x SPDIF out header

System BIOS	•	AMI BIOS with 32Mb SPI Flash ROM - Supports Plug and Play, STR (S3)/STD (S4) - Supports ACPI & DMI - Supports Hardware Monitor - Audio, LAN, can be disabled in BIOS - F7 hot key for boot up devices option - Supports PaUp clear CMOS Hotkey (Has PS2 KB Model only) - Supports Dual Display - Supports Multi-Languange - Supports AC'97/HD Audio auto detect (default)
AP/Bundled Software Support	•	ECS Exclusive AP: Supports eBLU*1/eDLU/eSF*1
	•	3rd Party Bundled software: Cyberlink MediaSuite*2/Norton*2/ Muzee*2
		*Note: *1Microsoft .NET Framework 3.5 is required.* **2Free bundle software including ECS DVD: Cyberlink* MediaSuite*/Norton/Muzee/Sound Blaster Cinema.*
Form Factor	•	Micro ATX Size, 210mm x 180mm

QR Code for the complete manual download on ECS website: http://www.ecs.com.tw

Motherboard Components

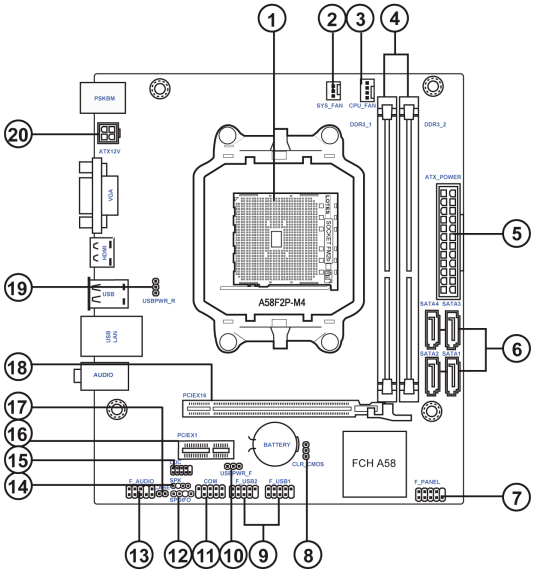
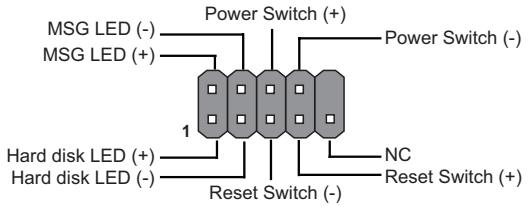


Table of Motherboard Components

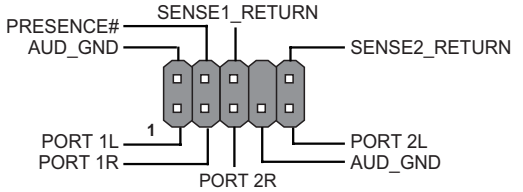
LABEL	COMPONENTS
1. CPU Socket	Socket FM2 for AMD A series processors
2. SYS_FAN	System cooling fan connector
3. CPU_FAN	CPU cooling fan connector
4. DDR3_1~2	240-pin DDR3 SDRAM slots
5. ATX_POWER	Standard 24-pin ATX power connector
6. SATA1~4	Serial ATA 3Gb/s connectors
7. F_PANEL	Front panel switch/LED header
8. CLR_CMOS	Clear CMOS jumper
9. F_USB1~2	Front panel USB 2.0 headers
10. USBPWR_F	Front panel USB power select jumper
11. COM	Serial port header
12. SPDIFO	SPDIF out header
13. F_AUDIO	Front panel audio header
14. SPK	Speaker header
15. LDC	Debug Card header
16. PCIE1	PCI Express x1 slots
17. CASE	Case open header
18. PCIEX16	PCI Express slot for graphics interface
19. USBPWR_R	Rear USB/PS2 power select jumper
20. ATX12V	4-pin +12V power connector

Header Pin Definition and Jumper Settings

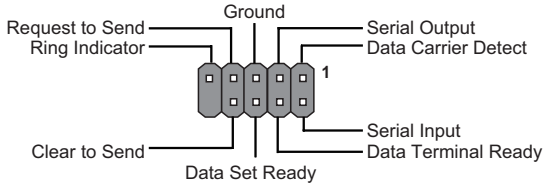
F_PANEL



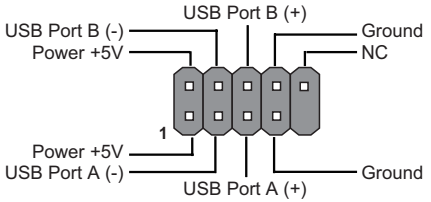
F_AUDIO



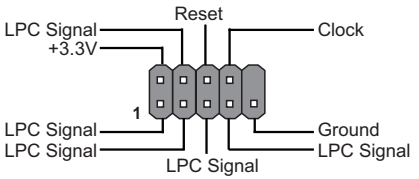
COM



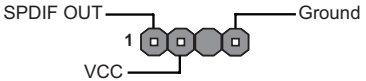
F_USB1~2



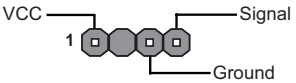
LDC



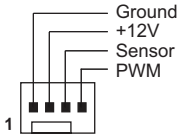
SPDIFO



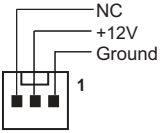
SPK



CPU_FAN

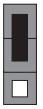


SYS_FAN



CASE

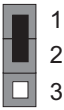
CLR_CMOS Jumper



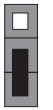
1-2: NORMAL
2-3: CLEAR CMOS
Before clearing the CMOS, make sure to turn off the system.

CLR_CMOS

USBPWR_R (Rear USB PS/2 Power Select Jumper)

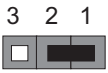


VCC
(Default)

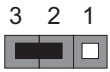


5VSB

USBPWR_F (Front Panel USB Power Select Jumper)

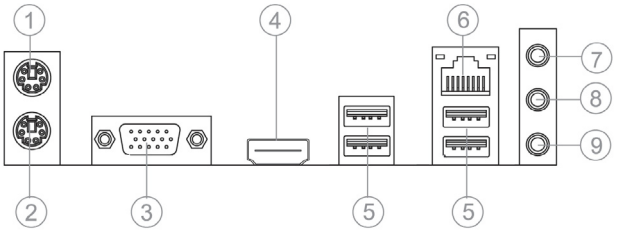


VCC
(Default)



5VSB

I/O Ports



1. PS/2 Mouse (green)
Use the upper PS/2 port to connect a PS/2 mouse.

2. PS/2 Keyboard (purple)
Use the lower PS/2 port to connect a PS/2 keyboard.

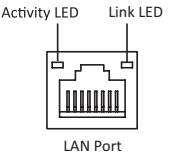
3. VGA Port
Connect your monitor to the VGA port.

4. HDMI Port (Optional)
You can connect the display device to the HDMI port.

5. USB 2.0 Ports
Use the USB 2.0 ports to connect USB 2.0 devices.

6. LAN Port
Connect an RJ-45 cable to the LAN port to connect your computer to the Network.

LAN LED	Status	Description
Activity LED	OFF	No data
	Orange blinking	Active
Link LED	OFF	No link
	Green	Link



7. Line-in (blue)
It can be connected to an external CD/DVD player, Tape player or other audio devices for audio input.

8. Line-out (lime)
It is used to connect to speakers or headphones.

9. Microphone (pink)
It is used to connect to a microphone.

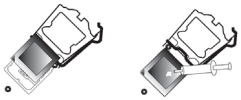
Hardware Installation Guide

Installation Steps

Step 1. Installation of the CPU and CPU Cooler:

1-1. Pull up the lever away from the socket. Align the CPU cut edge with the indented edge of the CPU socket. Gently place the CPU into correct position. Apply an even layer of thermal grease on the surface of CPU.

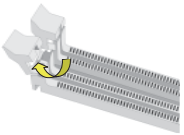
1-2. Rotate and press down the fastener of CPU fan to the motherboard through holes to install CPU fan into place.

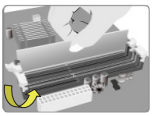


Step 2. Installation of Memory Modules:

2-1. Unfasten the latches on each side of the DIMM slots.

2-2. Firmly press the DIMM down until it seats correctly. Make sure the slot latches are levered upwards and latch on the edge of the DIMM.





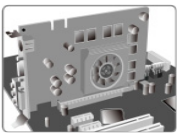
Step 3. Installation of Motherboard:

3-1. Replace the back I/O plate of the case with the I/O shield provided in motherboard's package.

3-2. Place the motherboard within the case by positioning it into the I/O plate. Secure the motherboard to the case with screws.

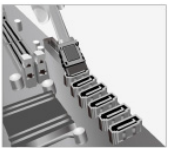
Step 4. Installation of an Expansion card:

Remove the metal located on the slot and then insert the expansion card into the slot. Press the card firmly to make sure it is fully inserted into its slot. And then return the screw back to its position.



Step 5. Connecting Cables and Power Connectors:

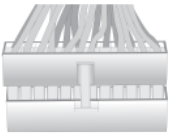
a. Connect the SATA hard drive to its SATA cable



b. Connect SATA power connector to the SATA device

c. Connect 24-pin power cable

Please note that when installing 24-pin power cable, the latches of power cable and the ATX connector match perfectly.

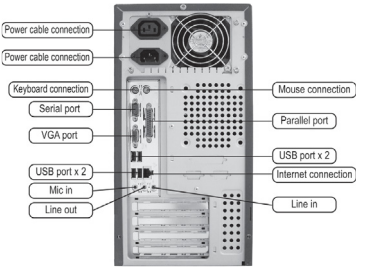


d. Connect 4-pin power cable

The ATX_12V 4-Pin power connector is used to provide power to the CPU. When installing 4-pin power cable, the latch of power cable matches the ATX_12V connector perfectly.

Step 6: Connecting ports on the case:

Once the steps above have been completed, please connect the peripherals such as the keyboard, mouse, monitor, etc. Then, connect the power and turn on the system. Please install all the required software.



Using BIOS

The BIOS (Basic Input and Output System) Setup Utility displays the system's configuration status and provides you options to set system parameters. When you power on the system, BIOS enters the Power-On Self Test (POST) routines, please ***press <DEL> or F2 to enter setup***. When powering on for the first time, the POST screen may show a ***"CMOS Settings Wrong"*** message. Please ***enter BIOS and choose "Load Default Settings"*** to reset the default CMOS values. (Changes to system hardware such as different CPU, memories, etc. may also trigger this message.)

The sequence of installation may differ depending on the type of case and devices used.

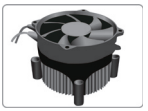
Manual de Instalação de Hardware

Etapas para instalação

Passo 1. Instalação da CPU e da CPU Refrigeração (Cooler):

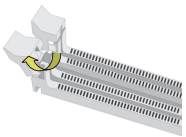
1-1. Puxe a alavanca para fora do soquete. Alinhe o lado da CPU com o lado correto do soquete do processador. Delicadamente, coloque o processador na posição correta. Aplique uma camada uniforme de pasta térmica na superfície da CPU.

1-2. Gire e pressione para baixo a alavanca de fecho da ventoinha da CPU pelos orifícios da placa-mãe para instalar o ventilador da CPU no lugar.

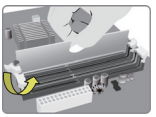


Passo 2. Instalação de módulos de memória:

2-1. Solte as travas em cada lado dos slots DIMM.



2-2. Pressione firmemente o módulo DIMM para baixo até que fique corretamente encaixado. Verifique se as travas do slot estão correctamente posicionadas e travam a extremidade do DIMM.



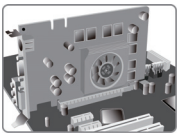
Passo 3. Instalação da Placa-mãe:

3-1. Mude a placa I/O que se encontra no gabinete pela placa de blindagem fornecida no pacote da placa-mãe.

3-2. Coloque a placa-mãe dentro do gabinete, posicionando-a no encaixe do I/O. Fixe a placa-mãe ao gabinte com parafusos.

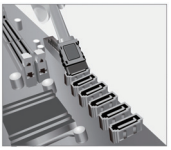
Passo 4. Instalação de uma placa de expansão:

Retire o metal localizado no slot e inserira a placa de expansão no slot. Pressione a placa firmemente para se certificar de que está completamente inserida na respectiva ranhura. Em seguida, coloque o parafuso para sua posição de origem.



Passo 5. Conexão de cabos e conectores de alimentação:

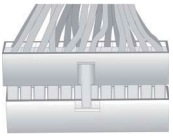
a. Conecte o disco rígido SATA ao seu cabo SATA.



b. Ligue o conector de alimentação SATA ao dispositivo SATA.

c. Ligue o cabo de alimentação 24 pinos.

Por favor note que ao instalar o cabo de alimentação de 24 pinos, as travas do cabo de alimentação e o conector ATX encaixam perfeitamente.

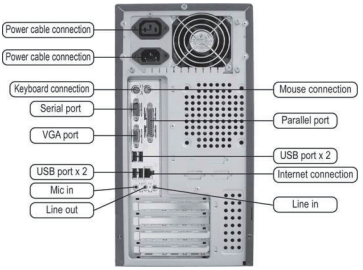


d. Ligue o cabo de alimentação de 4-pinos.

O conector de alimentação ATX_12V de 4-Pin é usado para fornecer energia para a CPU. Ao instalar o cabo de alimentação de 4pinos, as travas do cabo de alimentação correspondem perfeitamente ao conector ATX_12V.

Passo 6. Conectar dispositivos ao gabinete:

Após as etapas acima terem sido completadas, por favor conectar os periféricos como o teclado, o mouse, monitor, etc. Em seguida, conecte a alimentação e ligue o sistema. Por favor, instale todos os softwares necessários.



Usando a BIOS

O Programa de Configuração da BIOS (Sistema Básico de Entrada e Saída) apresenta o estado da configuração do sistema e fornece opções para definir os parâmetros do sistema. Quando você liga o sistema, a BIOS entra nas rotinas Teste Autónomo de Alimentação (POST), por favor **pressione <DEL> ou F2 para entrar no menu de configuração**. Ao ligar pela primeira vez, a tela pode mostrar a mensagem de erro POST "CMOS Configuração Errada". Por favor, **entre na BIOS e escolha "Carregar Configurações Padrão"** para repor os valores CMOS padrão. (Alterações ao hardware do sistema, como uma CPU diferente, memórias, etc., também podem desencadear esta mensagem.)

A sequência de instalação pode variar dependendo do tipo de caso e dos dispositivos utilizados.

हार्ड्वेयर स्थापना गाइड

स्थापना के चरण

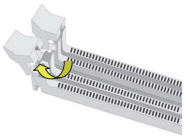
चरण 1. CPU और CPU कूलर स्थापित करना:

1-1. लीवर को सॉकेट में से खींचकर अलग करें. CPU के नोकदार सिरे को CPU सॉकेट के दांतेदार सिरे से मिलाकर लगाएं. CPU को आहिस्ता से ठीक जगह पर बिठाएं. CPU की सतह पर थर्मल ग्रीस की एकसार परत लगाएं.

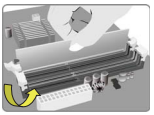
1-2. CPU के पंखे को उसकी जगह पर लगाने के लिए CPU के पंखे के फास्टनर को घुमाएं और उसे दबाकर मदरबोर्ड के आर-पार के छेदों में लगा दें.

चरण 2. मेमोरी मॉड्यूल स्थापित करना:

2-1. DIMM स्लॉट की प्रत्येक साइड पर लगे लैच खोल दें.



2-2. DIMM को मज़बूती से नीचे की ओर दबाएं जब तक वह अपनी जगह पर ठीक से न बैठ जाए. सुनिश्चित करें कि स्लॉट के लैच का रुख ऊपर की ओर रहता है और उन्हें DIMM के सिरे पर लैच किया जाता है.



चरण 3. मदरबोर्ड स्थापित करना:

3-1. केस की पिछली तरफ लगी I/O प्लेट को हटाकर उसकी जगह मदरबोर्ड के पैकेज में दी गई I/O शील्ड लगाएं.

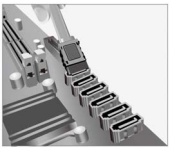
3-2. मदरबोर्ड को I/O प्लेट में ठीक तरह से बिठाकर केस के भीतर रखें. मदरबोर्ड को पेच से केस में कस दें.

चरण 4. एक्सपैंशन कार्ड स्थापित करना:

स्लॉट पर लगी धातु हटाएं और फिर एक्सपैंशन कार्ड स्लॉट में लगा दें. कार्ड को मज़बूती से दबाएं ताकि सुनिश्चित हो सके कि यह अपने स्लॉट में ठीक तरह से लग गया है. और फिर पेच को वापस उसकी जगह पर लगा दें.

चरण 5. केबल और पॉवर कनेक्टर स्थापित करना:

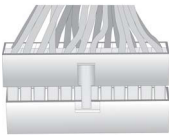
क. SATA हार्ड ड्राइव को उसकी SATA केबल से कनेक्ट करें



ख. SATA पॉवर कनेक्टर को SATA डिवाइस से कनेक्ट करें

ग. 24-पिन पॉवर केबल कनेक्ट करें

कृपया नोट करें कि 24-पिन पॉवर केबल लगाते समय, पॉवर केबल और ATX कनेक्टर के लैच बिल्कुल ठीक से मेल खाने चाहिए.

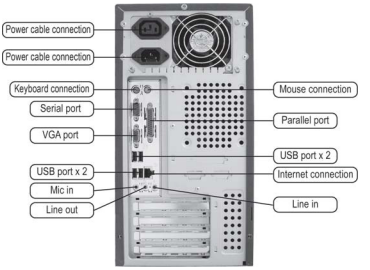


घ. 4-पिन पॉवर केबल कनेक्ट करें

CPU को पॉवर देने के लिए ATX_12V 4-पिन पॉवर कनेक्टर का उपयोग किया जाता है. 4-पिन पॉवर केबल स्थापित करते समय, पॉवर केबल का लैच ATX_12V कनेक्टर से बिल्कुल ठीक से मेल खाना चाहिए.

चरण 6. केस पर पोर्ट कनेक्ट करना:

उपर्युक्त चरण पूरे कर लेने के बाद, कृपया कीबोर्ड, माउस, मॉनीटर, आदि जैसे पेरिफेरेल कनेक्ट करें. उसके बाद, पॉवर कनेक्ट करें और सिस्टम चालू करें. कृपया सभी आवश्यक सॉफ्टवेयर स्थापित करें.



BIOS का उपयोग करना

BIOS (बेसिक इनपुट और आउटपुट सिस्टम) सेटअप यूटीलिटी सिस्टम के कॉन्फ़िगिरेशन की स्थिति प्रदर्शित करती है और आपको सिस्टम के पैरामीटर सेट करने के विकल्प उपलब्ध कराती है. जब आप सिस्टम की पॉवर ऑन करते हैं, तो BIOS पॉवर-ऑन सेल्फ़ टेस्ट (POST) रूटीन में प्रवेश करता है, कृपया **सेटअप में जाने के लिए <DEL> या F2 दबाएं** . पहली बार पॉवर चालू किए जाने पर, POST स्क्रीन "CMOS Settings Wrong" संदेश दिखा सकती है. डिफ़ॉल्ट CMOS वैल्यू रीसेट करने के लिए कृपया **BIOS में जाएं और "Load Default Settings" चुनें** . (भिन्न CPU, मेमोरी, आदि जैसे सिस्टम हार्डवेयर में बदलाव करने पर भी यह संदेश आ सकता है.)

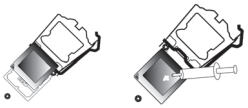
केस के प्रकार और उपयोग की जाने वाली डिवाइस के अनुसार स्थापना का क्रम अलग-अलग हो सकता है.

Guide d'installation matérielle

Etapes d'installation

Etape 1. Installation du CPU et du refroidisseur de CPU:

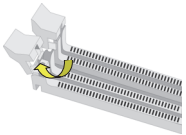
1-1. Ecartez le levier du socket. Alignez le bord coupé du CPU avec le bord correspondant sur le socket du CPU. Placez soigneusement le CPU dans la bonne position. Appliquer une couche uniforme de pâte thermique sur la surface du CPU.



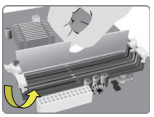
1-2. Tournez et appuyez sur la fixation du ventilateur du CPU contre la carte mère à travers les trous pour mettre en place le ventilateur du CPU.

Etape 2. Installation des modules mémoire:

2-1. Libérez les loquets de chaque côté des logements DIMM.



2-2. Pressez fermement le module DIMM jusqu'à ce qu'il soit correctement installé. Assurez-vous que les loquets des logements sont soulevés et accrochés sur le bord de la DIMM.



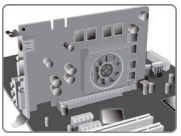
Etape 3. Installation de la carte mère:

3-1. Replacez la plaque E/S arrière du boîtier avec le blindage E/S fourni dans l'emballage de la carte mère.

3-2. Placez la carte mère dans le boîtier en la positionnant dans la plaque E/S. Fixez la carte mère au boîtier avec les vis.

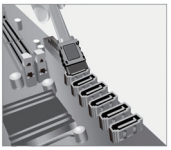
Etape 4. Installation d'une carte d'extension:

Retirez le métal situé sur le logement et insérez la carte d'extension dans le logement. Appuyez fermement sur la carte pour vous assurer qu'elle est complètement insérée dans le logement. Remettez ensuite la vis en place.



Etape 5. Connexion des câbles et des connecteurs d'alimentation:

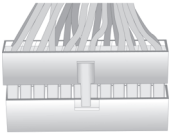
a. Connectez le disque dur SATA à son câble SATA



b. Branchez le connecteur d'alimentation SATA au périphérique SATA

c. Connectez le câble d'alimentation 24 broches

Notez que lors de l'installation du câble d'alimentation 24 broches, les loquets du câble d'alimentation et le connecteur ATX correspondent parfaitement.

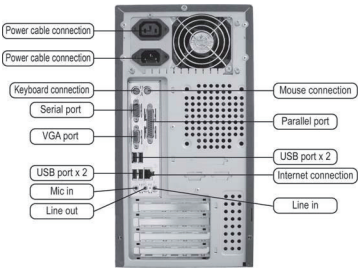


d. Connectez le câble d'alimentation 4 broches

Le connecteur d'alimentation 4 broches ATX_12V est utilisé pour alimenter le CPU. Lors de l'installation du câble d'alimentation 4 broches, le loquet du câble d'alimentation correspond parfaitement au connecteur ATX_12V.

Etape 6. Connexion des ports au boîtier:

Une fois que les étapes ci-dessus ont été effectuées, connectez les périphériques tels que le clavier, la souris, le moniteur, etc. Puis, connectez l'alimentation et allumez le système. Installez tous les logiciels requis.



Utilisation du BIOS

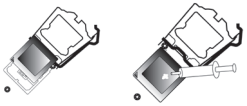
L'utilitaire d'installation BIOS (Basic Input and Output System) affiche l'état de la configuration du système et vous offre des options vous permettant de définir les paramètres du système. Quand vous allumez le système, le BIOS entre dans les routines du POST (Power-On Self Test), **appuyez sur <SUPPR> ou F2 pour entrer dans l'utilitaire d'installation**. Lors de la première mise sous tension, l'écran du POST peut afficher le message “CMOS Settings Wrong” (Paramètres CMOS erronés) **Accédez au BIOS et choisissez “Load Default Settings”(Charger les paramètres par défaut)** pour réinitialiser les valeurs CMOS par défaut. (Les modifications apportées au matériel du système tels que différents CPU, mémoires, etc. peuvent également déclencher ce message.)

La séquence d'installation peut changer selon le type de boîtier et les périphériques utilisés.

Hardware Installationsanleitung
Installationsschritte

Schritt 1. Installation der CPU und des CPU-Kühlers:

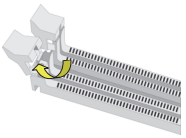
1-1. Lösen Sie den Hebel vom CPU-Sockel. Entfernen Sie eventuell die Kunststoffabdeckung und richten Sie die Kerbe der CPU mit der entsprechenden Stelle des CPU-Sockels aus. Legen Sie die CPU vorsichtig in die korrekte Position. Tragen Sie eine erbsengroße Menge der Wärmeleitpaste in der Mitte der glatten Oberfläche der CPU auf.



1-2. Lösen Sie durch eine Drehung die Pushpins des CPU-Kühlers und richten Sie diese mit den entsprechenden Löchern neben dem CPU-Sockel auf der Hauptplatine aus und drücken Sie die Pushpins nach unten bis sie einrasten.

Schritt 2. Installation der Speichermodule:

2-1. Lösen Sie die Verriegelungen an beiden Seiten der DIMM-Steckplätze.



2-2. Drücken Sie das DIMM-Speichermodul vorsichtig aber fest nach unten, bis es richtig sitzt. Drücken Sie die Verriegelungen an den Seiten des Speichermoduls nach oben und prüfen Sie, ob diese im DIMM-Speichermodul richtig eingerastet sind.

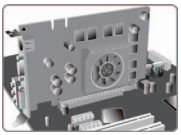
Schritt 3. Installation der Hauptplatine:

3-1. Entfernen Sie die rückseitige ATX-Blende (I/O-Schild) des Gehäuses und verwenden Sie die ATX-Blende, die mit der Hauptplatine mitgeliefert wurde.

3-2. Richten Sie die Anschlussseite der Hauptplatine an den Anschluss-Löchern der ATX-Blende im Gehäuse aus und platzieren Sie die Hauptplatine im Gehäuse. Befestigen Sie die Hauptplatine mit den Schrauben am Gehäuse.

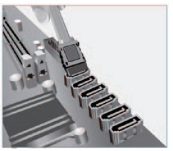
Schritt 4. Installation einer Erweiterungskarte:

Entfernen Sie die entsprechende Slot-Blechabdeckung aus Metall hinten am Gehäuse, wo der zu verwendende Steckplatz sich befindet und stecken Sie die Erweiterungskarte in den Steckplatz. Prüfen Sie ob die Kontakte der Erweiterungskarte vollständig im Steckplatz eingeschoben sind. Befestigen Sie die Erweiterungskarte mit der Schraube mit der die Slot-Blechabdeckung befestigt war.



Schritt 5. Anschluss der Kabel und Stromversorgungsanschlüsse:

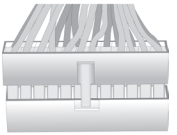
a. Schließen Sie das/die SATA-Kabel der SATA-Festplatte(n) und eventuell den Laufwerken auf der Hauptplatine an



b. Schließen Sie die SATA-Stromanschlusskabel an den SATA-Geräten an

c. Stecken Sie das 24-Pin-Stromversorgungskabel in den entsprechenden Anschluss auf der Hauptplatine

Beachten Sie dabei bitte, dass die Lasche auf der einen Seite des 24-Pin-Stromversorgungskabels am ATX-Anschluss auf der Hauptplatine eingerastet ist.

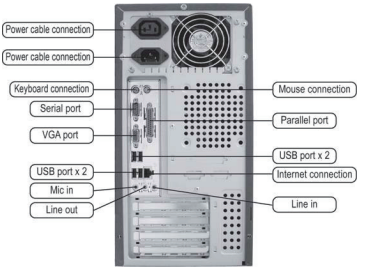


d. Stecken Sie das 4-Pin-Stromversorgungsk - abel in den entsprechenden Anschluss auf der Hauptplatine

Der ATX_12V 4-Pin-Anschluss versorgt die CPU mit Strom. Beachten Sie dabei bitte, dass die Lasche auf der einen Seite des 4-Pin-Stromversorgungska -bels am ATX-Anschluss auf der Hauptplatine eingerastet ist.

Schritt 6. Anschließen weiterer Geräte:

Sobald Sie die oben genannten Schritte abgeschlossen haben, können Sie die Peripheriegeräte wie etwa Tastatur, Maus, Monitor, usw. anschließen. Stecken Sie dann das eine Ende des Netzkabels hinten in das Netzteil und das andere Ende in eine Steckdose. Nach Anschluss der unten genannten Peripheriegeräte können Sie die benötigte Software installieren.



Verwendung des BIOS

Das BIOS (Basic Input und Output System) Einrichtungsprogramm zeigt die momen- tane Konfiguration der Hauptplatine an und ermöglicht die Änderung einiger Werte bzw. Einstellungen. Wenn Sie den Computer einschalten, durchläuft das BIOS den sogenannten Power-On Self Test (POST), d.h. einen Selbsttest; um zu den Einstellmöglichkeiten zu gelangen, ***drücken Sie bitte die „Entf"-Taste oder die F2-Taste.*** Wenn Sie den Computer zum ersten Mal einschalten, wird eventuell die Meldung „CMOS Settings Wrong" angezeigt. Zur Abhilfe, drücken Sie bitte wie oben angegeben die entsprechende Taste, um zu den Einstellmöglichkeiten zu gelangen, ***suchen Sie die Einstellmöglichkeit "Load Default Settings"***, und markieren Sie diese und speichern Sie die Einstellungen mit "Save and Exit". (Änderungen an der-Hardware, wie z.B. eine andere CPU, an derer Arbeitsspeicher, usw. können diese Meldung auch hervorrufen.)

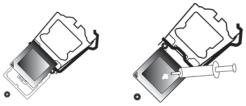
Die Reihenfolge der Installation kann je nach Art des Gehäuses und der verwendeten Geräte variieren.

Руководство по установке оборудования

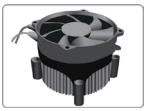
Этапы установки

Шаг1. Установка центрального процессора и кулера для центральногопроцессора:

1-1. Потяните рычаг в сторону от сокета. Выровняйте срезанный край ЦП с выступающим краем сокета процессора. Осторожно установите ЦП в правильное положение. Нанесите ровный слой термальной смазки на поверхность ЦП.

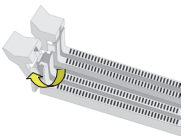


1-2. Поверните и прижмите зажим вентилятора ЦП к сквозным отверстиям на материнской плате, чтобы установить вентилятор ЦП на место.

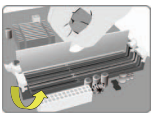


Шаг2. Установка модулей памяти:

2-1. Ослабьте защелки на каждой стороне DIMM-слотов.



2-2. Крепко надавите на DIMM-слот, пока он не будет правильно установлен. Убедитесь, что защ елки слота подняты вверх и закреплены на краю DIMM-слота.



Русский язык

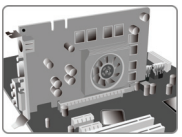
Шаг3. Установка материнской платы:

3-1. Замените плату ввода/вывода на блоке планкой портов ввода-вывода, входящей в комплект упаковки с материнской платой.

3-2. Поместите материнскую плату внутрь корпуса, совместив с платой ввода-вывода. Прикрепите материнскую плату к корпусу при помощи болтов.

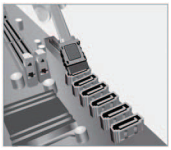
Шаг4. Установка карты расширения:

Удалите металлическую пластину, расположенную на слоте, а затем вставьте карту расширения в слот. Крепко надавите на карту, чтобы убедиться, что она полностью вставлена в слот. Затем установите болт на место.



Шаг5. Подсоединение кабелей к разъемам питания:

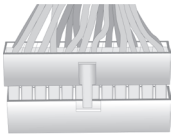
а. Подсоедините жесткий диск SATA к кабелю SATA



б. Подсоедините силовой разъем SATA к устройству SATA

в. Подсоедините 24-контактный кабель питания

Обратите внимание, что при установке 24-контактного кабеля питания зажимы кабеля питания и разъема ATX должны точно совпадать.

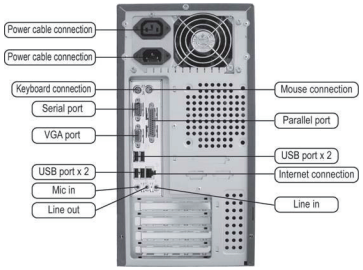


г. Подсоедините 4-контактный кабель питания

Для подачи питания к ЦП используется 4-контактный силовой разъем ATX_12V. При установке 4-контактного кабеля питания зажим кабеля должен точно совпадать с разъемом ATX_12V.

Шаг6. Соединение портов на корпусе:

После выполнения указанных выше шагов подключите периферийные устройства, такие как клавиатура, мышь, монитор и т.п. Затем подключите питание и включите систему. Установите все необходимое программное обеспечение.



Использование BIOS

Программа установки BIOS (базовая система ввода-вывода) отображает состояние конфигурации системы и предоставляет опции для задания системных параметров. При включении системы BIOS вводит стандартные программы POST (самотестирование при включении питания), **нажмите <DEL> или F2, чтобы начать установку.** При включении питания в первый раз на экране POST может отобразиться сообщение “CMOS Settings Wrong” (Неправильные настройки CMOS). **Введите BIOS и выберите “Load Default Settings”** (Настройки по умолчанию), чтобы восстановить значения CMOS по умолчанию. (Изменения системного оборудования, например, другой центральный процессор, устройства памяти и пр., могут также стать причиной появления данного сообщения).

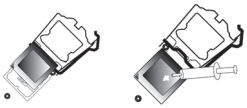
Последовательность установки может отличаться в зависимости от типа корпуса и используемых устройств.

Guía de instalación del hardware

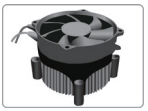
Pasos para realizar la instalación

Paso 1. Instalación de la CPU y sistema de refrigeración de la CPU:

1-1. Tire de la palanca hacia arriba, apartándola del zócalo. Alinee el borde recortado de la CPU con el borde dentado del zócalo de la CPU. Coloque suavemente la CPU en la posición correcta. Aplique una capa uniforme de grasa térmica sobre la superficie de la CPU.

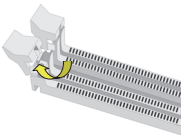


1-2. Gire y presione hacia abajo la sujeción del ventilador de la CPU, contra la placa base a través de los orificios, para instalar el ventilador de la CPU en su sitio.

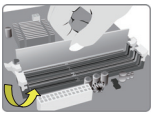


Paso 2. Instalación de los módulos de memoria:

2-1. Suelte los pestillos a cada lado de las ranuras DIMM.



2-2. Presione con firmeza el DIMM hacia abajo hasta que asiente correctamente. Asegúrese de que los pestillos de la ranura esten levantados y traben los extremos del DIMM.



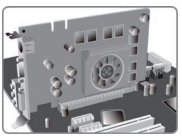
Paso 3. Installation of Motherboard:

3-1. Cambie la placa I/O trasera de la carcasa por la protección I/O proporcionada en el paquete de la placa base.

3-2. Coloque la placa base dentro de la carcasa colocándola en la placa I/O. Asegure la placa base a la carcasa con tornillos.

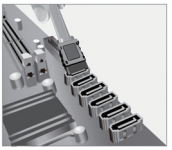
Paso 4. Instalación de la tarjeta de expansión:

Quite el metal colocado en la ranura e inserte la tarjeta de expansión en la ranura. Presione con firmeza la tarjeta hasta que quede perfectamente introducida en la r anura. Desp ués vuelva a poner el tornillo en su posición.



Paso 5. Conexión de los cables y los conectores de alimentación:

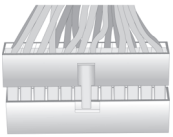
a. Conecte el disco duro SATA al cable SATA.



b. Conecte el conector de alimentación SATA al dispositivo SATA .

c. Conecte el cable de alimentación de 24 pines.

Tenga en cuenta, al instalar el cable de alimentación de 24 pines, que los pestillos del cable y del conector ATX deben encajar perfectamente.

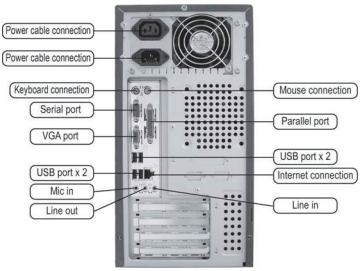


d. Conecte el cable de alimentación de 4 pines.

El conector de alimentación de 4 pines ATX_12 V se se utiliza para proporcionar alimentación a la CPU. Cuando instale el cable de alimentación de 4 pines, el pestillo del cable debe encajar perfectamente con el conector ATX_12 V.

Paso 6. Conexión de los puertos en la carcasa:

Una vez completados los anteriores pasos, conecte los periféricos como el teclado, el mouse, monitor, etc. A continuación, conecte la alimentación y encienda el sistema. Instale todo el software necesario.



Utilización de la BIOS

La aplicación de configuración BIOS (Sistema de entrada y salida básico) muestra el estado de configuración del sistema y proporciona las opciones para configurar los parámetros del sistema. Cuando enciende el sistema, la BIOS entra en las rutinas de Prueba automática en encendido (POST); presione <DEL>, <SUP> o F2 para entrar en modo configuración. Al encender por primera vez, la pantalla POST puede mostrar el mensaje "Configuración CMOS incorrecta". Entre en la BIOS y seleccione “Cargar parámetros predeterminados” para restaurar los valores CMOS predeterminados. (Los cambios en el hardware del sistema, como una CPU diferente, memorias diferentes, etc., pueden activar también este mensaje).

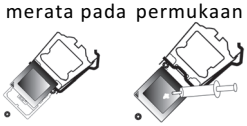
La secuencia de instalación puede ser diferente dependiendo del tipo de carcasa y de los dispositivos utilizados.

Panduan Pemasangan Perangkat Keras

Langkah-Langkah Pemasangan

Langkah 1. Pemasangan CPU dan Pendingin CPU:

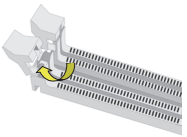
1-1. Tarik tuas dari soket. Luruskan tepi pemisah CPU dengan tepi bertakik dari soket CPU. Pasang CPU secara perlahan pada posisi yang tepat. Oleskan lapisan gemuk termal secara merata pada permukaan CPU.



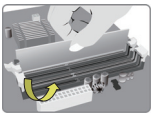
1-2. Putar dan tekan penahan kipas CPU ke lubang tembus motherboard untuk memasang kipas CPU pada tempatnya.

Langkah 2. Pemasangan Modul Memori:

2-1. Longgarkan kait pada setiap sisi slot DIMM.



2-2. Tekan kuat DIMM hingga terpasang dengan benar. Pastikan kait slot terpasang pada tuas atas dan kaitkan pada tepi DIMM.



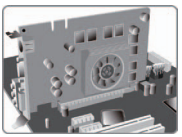
Langkah 3. Pemasangan Motherboard:

3-1. Pasang kembali pelat I/O casing dengan pelindung I/O yang disediakan dalam paket motherboard.

3-2. Tempatkan motherboard pada casing dengan memosisikannya ke dalam pelat I/O. Kencangkan motherboard pada casing dengan sekrup.

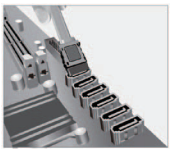
Langkah 4. Pemasangan kartu Ekspansi:

Lepaskan logam yang terletak pada slot lalu masukkan kartu ekspansi ke dalam slot. Tekan kartu dengan kencang untuk memastikan bahwa kartu telah masuk sepenuhnya ke dalam slot. Lalu pasang kembali sekrup ke dalam posisinya.



Langkah 5. Menyambungkan Kabel dan Konektor Daya:

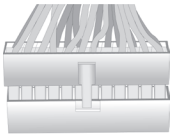
a. Sambungkan hard drive SATA ke kabel SATA



b. Sambungkan konektor daya SATA ke perangkat SATA

c. Sambungkan kabel daya 24 pin

Perhatikan bahwa saat memasang kabel daya 24, kait pada kabel daya dan konektor ATX harus sesuai.

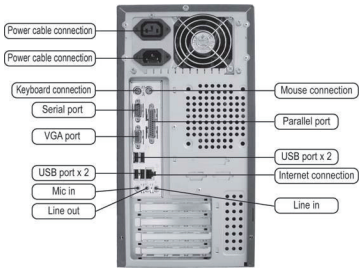


d. Sambungkan kabel daya 4 pin

Konektor daya ATX_12V 4 pin digunakan untuk menyediakan daya ke CPU. Saat memasang kabel daya 4 pin, kait kabel daya cocok dengan konektor ATX_12V.

Langkah 6. Menyambungkan port pada casing:

Setelah langkah-langkah di atas selesai, harap sambungkan peripheral seperti keyboard, mouse, monitor, dll. Lalu sambungkan daya dan nyalakan sistem. Harap pasang semua perangkat lunak yang dibutuhkan.



Menggunakan BIOS

Utulitas Pengaturan BIOS (Basic Input and Output System) menampilkan status konfigurasi sistem dan memberi Anda opsi untuk mengatur parameter sistem. Saat Anda menyalakan daya pada sistem, BIOS masuk ke rutinitas Power-On Self Test (POST), harap **tekan <DEL > atau F2 untuk masuk ke pengaturan**. Saat menyalakan untuk pertama kalinya, layar POST mungkin akan menunjukkan pesan "CMOS Settings Wrong" (Kesalahan Pengaturan CMOS). Harap **masukkan BIOS dan tentukan "Load Default Settings" (Pengaturan Standar Beban)** untuk menyetel kembali nilai CMOS standar. (Perubahan pada perangkat keras sistem seperti CPU, memori yang berbeda, dll. juga dapat memicu pesan ini.)

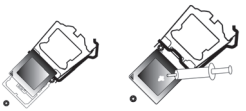
Urutan pemasangan mungkin berbeda bergantung pada jenis casing dan perangkat yang digunakan.

دليل تركيب المكونات الصلبة

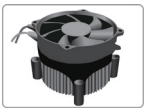
خطوات التركيب

الخطوة رقم 1. تركيب وحدة المعالجة المركزية ومبرد وحدة المعالجة المركزية:

1-1 اسحب الذراع لأعلى بعيدا عن المقبس. قم بمحاذاة الطرف مشقوق وحدة المعالجة المركزية مع الطرف المسنن لمقبس وحدة المعالجة المركزية. ضع وحدة المعالجة المركزية برفق في الوضع الصحيح. ضع طبقة مستوية من المعجون الحراري على سطح وحدة المعالجة المركزية.

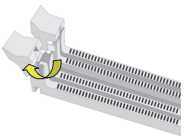


2-1 قم بالإدارة والضغط لأسفل على مشبك مروحة وحدة المعالجة المركزية في اللوحة الأم عبر الفتحات لتثبيت مروحة وحدة المعالجة المركزية في مكانها.

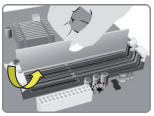


الخطوة رقم 2. تركيب وحدات الذاكرة:

2-1 افتح الأقفال الموجودة على كل جانب من فتحات وحدة الذاكرة المتكاملة الثنائية (DIMM).



2-2 اضغط بقوة على وحدة الذاكرة الثنائية المتكاملة لأسفل حتى يتم تثبيتها بشكل صحيح. تأكد من رفع أقفال الفتحات لأعلى وقم بإغلاقها على حافة وحدة الذاكرة الثنائية المتكاملة.



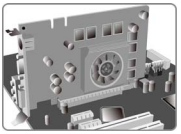
الخطوة رقم 3. تركيب اللوحة الأم:

3-1 استبدل لوحة الإدخال/الإخراج الموجودة في الحاوية بدرع الإدخال/الإخراج المرفق في عبوة اللوحة الأم.

3-2 ضع اللوحة الأم داخل الحاوية عن طريق تثبيتها داخل لوحة الإدخال/الإخراج. قم بتثبيت اللوحة الأم داخل الحاوية بواسطة المسامير.

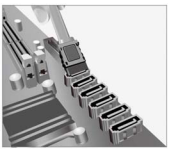
الخطوة رقم 4. تركيب بطاقة التوسعة:

قم بإزالة الجزء المعدني الموجود على الفتحة ثم أدخل بطاقة التوسعة في الفتحة. اضغط على البطاقة بقوة للتأكد من إدخالها بشكل كامل في فتحتها. ثم قم بإعادة البراغي مرة أخرى إلى مواضعها.



الخطوة رقم 5. كبلات التوصيل وموصلات الطاقة:

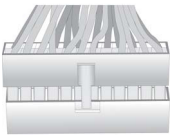
أ. قم بتوصيل محرك الأقراص من طراز SATA بكبل SATA الخاص به



ب. قم بتوصيل موصل الطاقة من طراز SATA بالجهاز من طراز SATA

ج. قم بتوصيل كبل الطاقة المزود بعدد 24 دبوس0

يرجى ملاحظة أنه عند تركيب كبل الطاقة المزود بعدد 24 دبوس، يجب تطابق أقفال كبل الطاقة وموصل ATX بشكل كامل.

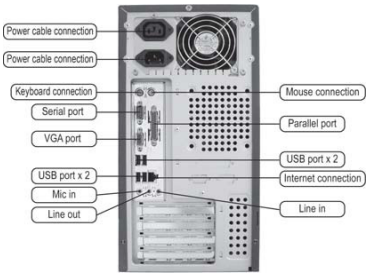


د. قم بتوصيل كبل الطاقة المزود بعدد 4 دبوس

يستخدم موصل الطاقة ATX بجهد 12 فولت المزود بعدد 4 دبابيس لتوفير الطاقة لوحدة المعالجة المركزية. عند تركيب كبل الطاقة المزود بعدد 4 دبابيس، يتطابق قفل كبل الطاقة مع موصل ATX بجهد 12 فولت بشكل كامل.

الخطوة رقم 6. منافذ التوصيل في الحاوية:

بمجرد الانتهاء من الخطوات الموضحة أعلاه، يرجى توصيل الأجهزة الطرفية مثل لوحة المفاتيح والفأرة والشاشة، الخ. بعد ذلك يتم توصيل الطاقة وتشغيل النظام. يرجى تثبيت كافة البرامج المطلوبة.



استخدام نظام الإدخال والإخراج الأساسي (BIOS)

يظهر برنامج إعداد (نظام الإدخال والإخراج الأساسي) BIOS حالة تهيئة النظام ويوفر لك خيارات تحديد معلمات النظام. عند تشغيل النظام، يدخل نظام الإدخال والإخراج الأساسي إلى الاختبار الذاتي لبدء التشغيل (POST) بشكل اعتيادي، يرجى **الضغط على زر <DEL> أو F2 للدخول إلى قائمة الإعداد**. عند التشغيل لأول مرة، قد تعرض شاشة الاختبار الذاتي لبدء التشغيل رسالة "خطأ في إعدادات نظام تشغيل ذاكرة التهيئة (CMOS)". يرجى **الدخول إلى نظام الإدخال والإخراج الأساسي واختيار "تحميل الإعدادات الافتراضية"**لإعادة ضبط القيم الافتراضية لنظام تشغيل ذاكرة التهيئة. (قد يتسبب تغيير المكونات الصلبة للنظام مثل وحدة المعالجة المركزية ووحدات الذاكرة المختلفة، الخ. في ظهور تلك الرسالة.)

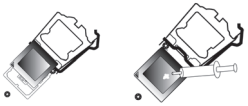
قد يختلف ترتيب التركيب وفقا لنوع الحاوية والأجهزة المستخدمة.

硬件安装指南

安装步骤

1.安装CPU和CPU风扇:

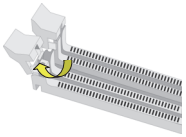
1-1. 松开CPU插槽旁的固定杆，向上拉固定杆，并掀开插槽上的保护盖。将CPU边缘的缺口对准CPU插槽标示边缘，小心地将CPU置入插槽。然后在CPU表层涂抹一层平滑的散热膏。



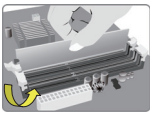
1-2. 将CPU风扇扣具对齐主板上的对应孔位，向下按压并且旋转扣具，固定CPU风扇。

2.安装记忆体模组:

2-1. 向外扳开内存插槽两端的卡扣。



2-2. 对准内存插槽，将内存条往下按直至完全插入。正确安装后插槽两端的卡扣会自动锁住内存条边缘。



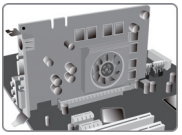
3.安装主板:

3-1. 取下机箱后面的I/O挡板，换上主板附带的I/O弹片。

3-2. 将主板的后I/O对准机箱上的I/O挡板孔位，放入机箱并以螺丝固定。

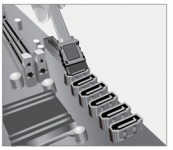
4.安装扩充卡:

移除机箱后面的扩充金属挡板，确认扩充卡完全插入扩展 槽后，重新拧上螺丝。



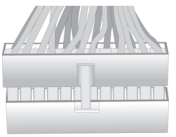
5.连接电源线与电源接头：

a. 将***SATA***电缆连接至***SATA*** 硬盘



b. 将***SATA***电源接头连接至***SATA***设备

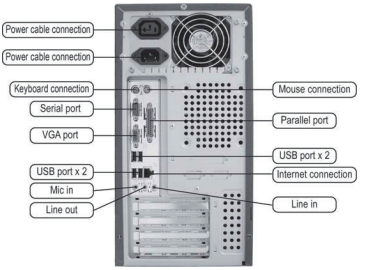
c. 连接***24***针电源线与电源接头
请注意电源接头与电源线必须完全扣合。



d. 连接***4***针电源线与电源接头
4针电源接头提供CPU电源。其电源接头与电源线必须完全扣合。

6.连接机箱端口：

当上述安装步骤完成后，请开始安装键盘，鼠标，显示器等外围设备，然后连接电源并启动系统。请安装好所需的软件。



BIOS使用设定

BIOS程序画面会显示系统配置，同时提供操作选项让您设定系统参数。当开机时，BIOS会进行开机自我测试 (POST)，请**点击 <DEL> 或 F2 进入BIOS程序设定**。第一次开机时，POST画面可能会显示 “CMOS Settings Wrong” 信息，请进入BIOS选单并选择 **“Load Default Settings”** 将BIOS重新设定为默认值 (更换CPU或内存等硬件变更也可能会出现此信息)。

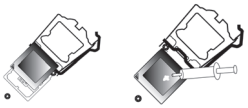
此说明内容中提供图片或安装方式仅供参考。

하드웨어 설치 가이드

단계별 설치 방법

1단계. CPU와CPU쿨러 설치하기:

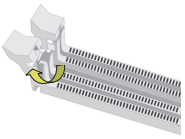
1-1. 소켓에서 레버를 뽑아 냅니다. CPU 끝 부분을 CPU 소켓의 들어간 끝부분에 맞춥니다. CPU를 정확한 위치에 살며시 위치시킵니다. CPU의 표면에 써멀 그리스를 고르게 도포합니다.



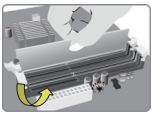
1-2. 패스너를 돌려 CPU 팬을 마더보드의 쓰루-홀에 눌러 넣어 CPU 팬을 제 위치에 설치합니다.

2단계. 메모리 모듈 설치하기:

2-1. DIMM 슬롯의 각 측면에 있는 걸쇠를 풉니다.



2-2. DIMM이 정확하게 설치될 때까지 단단히 누릅니다. 슬롯 걸쇠를 위로 올려 DIMM의 가장자리를 잠급니다.



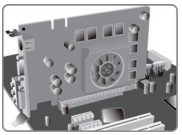
3단계. 마더보드 설치하기:

3-1. 케이스의 후면 I/O 플레이트를 마더보드의 패키지에 제공된 I/O 실드로 교체합니다.

3-2. 마더보드를 I/O 플레이트에 위치시켜 케이스 내에. 스크류로 마더보드를 케이스에 고정시킵니다.

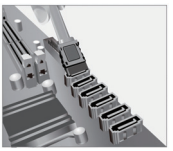
4단계. 확장 카드 설치하기:

슬롯에 설치되어 있는 금속을 제거하고 확장 카드를 해당 슬롯에 삽입합니다. 슬롯에 완전히 삽입될 수 있도록 카드를 단단히 누릅니다. 스크류를 다시 제 자리에 체결합니다.



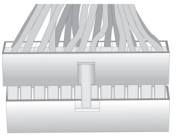
5단계. 케이블 및 전원 커넥터 연결하기:

a. SATA 하드 드라이브를 ***SATA*** 케이블에 연결합니다

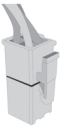


b. SATA 전원 커넥터를 ***SATA*** 장치에 연결합니다

c. 4핀 전원 케이블을 연결합니다
24핀 전원 케이블 연결시 전원 케이블과 ATX 커넥터의 걸쇠가 완벽하게 맞아야 합니다.

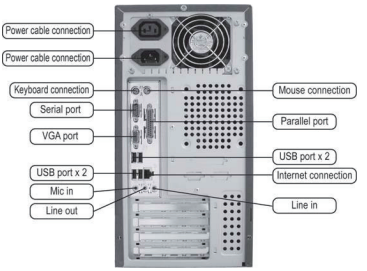


d. 4핀 전원 케이블을 연결합니다
ATX_12V 4핀 전원 커넥터는 전원을 CPU에 공급하기 위해 사용됩니다. 4핀 전원 케이블 설치시에는, 전원 케이블의 걸쇠가 ATX_12V 커넥터와 완벽하게 맞아야 합니다.



6단계. 케이스의 포트 연결하기:

일단 위의 단계들이 완료되면, 키보드, 마우스, 모니터 등과 같은 주변기기들을 연결합니다. 그런 후에, 전원을 연결하고 시스템을 켭니다. 모든 필수 소프트웨어를 설치합니다.



BIOS 사용하기

BIOS 셋업 유틸리티(Setup Utility)는 시스템의 환경설정 상태를 표시하며 시스템 매개변수를 설정하기 위한 옵션을 제공합니다. 시스템의 전원을 켜면, BIOS는 Power-On Self Test (POST) 루틴을 실행합니다. **<DEL> 또는 F2를 눌러 셋업으로 들어가십 시.**오처음으로 전원을 켜면 POST 화면에"CMOS Settings Wrong" 메시지가 나타날 수 있습니다. **BIOS로 들어가 "Load Default Settings"을 선택하여** 기본 CMOS 설정값을 재설정합니다. (CPU, 메모리 등과 같은 시스템 변경할 때에도 본 메뉴가 나타날 수 있습니다.)

설치절차는 사용된 케이스 및 장치의 유형에 따라 다를 수 있습니다.